

REMARKS

The current Amendment is being filed in response to the April 10, 2008 Office Action. Claims 1-5 are pending in this application. The Examiner has rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Keskitalo (U.S. Patent No. 6,345,188). Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keskitalo in view of Ponnekanti (U.S. Pub. No. 2002/0150065). Claims 1-4 have been amended to address the prior art rejections. Claim 5 was amended to correct a punctuation error noted by Applicant. Applicant submits that the current claims, as amended, are allowable over the cited prior art for the reasons provided below.

I. Rejection under §102 based on Keskitalo

Claims 1-3 stand rejected as anticipated by Keskitalo. Applicant has amended those claims to further clarify the distinctions between those claims and Keskitalo. As amended independent claims 1 and 3 make clear that changing directivity of the adaptive antenna is based on information on the receiving condition that exists in the radio terminal and that a signal is transmitted while directivity is being changed. The receiving condition information is derived from a signal transmitted from the base station to the radio terminal.

Keskitalo fails to disclose or teach controlling the directivity of the adaptive antenna based on the receiving condition of a signal in the radio terminal, while changing the directivity of the signal. That is, Keskitalo fails to disclose “a directivity control portion for controlling the directivity of said adaptive antenna based on said information indicative of the receiving condition of the signal in the radio terminal wherein said transmitting portion transmits said signal while changing directivity” as in claim 1. Thus, claim 1, as amended is allowable of

Keskitalo. Claim 3, as amended, is allowable for the same reasons claim 1 is allowable over Keskitalo.

Claim 2, which depends from claim 1, is distinguishable over Keskitalo for the same reasons as claim 1. Claim 2 has been amended to conform to the language of amended claim 1. In addition, claim 2 is patentable over Keskitalo on the ground that Keskitalo fails to disclose setting the directivity of the adaptive antenna to be non-directional until a request is received from the radio terminal. The Examiner asserts that Keskitalo teaches this claimed limitation. However, the portions of Keskitalo that the Examiner cites do not support the Examiner's assertion. The Examiner seems to be arguing that in Keskitalo the directivity of the adaptive antenna is set to be non-directional until a **request to change the parameters of the antenna beams is received** from said radio terminal. This is technically conflicting. That is, the request to change the **formed** antenna beam cannot be transmitted in the state that the directivity of the adaptive antenna is **"non-directional"**. In other words, when the request is transmitted, the antenna beam should have been already formed. As a result, "a request to change the parameters of the antenna beam" of Keskitalo is totally different from the connection request as in claim 2. Therefore, Keskitalo fails to disclose "said directivity control portion sets the directivity of said adaptive antenna to be non-directional until a connection request is received from said radio terminal" as in claim 2.

II. Rejection under §103 based on Keskitalo in view of Ponnekanti

Claims 4 and 5 stand rejected as obvious over Keskitalo in view of Ponnekanti. As explained, Keskitalo fails to disclose changing directivity of the adaptive antenna based on information on the receiving condition that exists in the radio terminal and that a signal is transmitted while directivity is being changed. Claim 4 recites that the receiving condition

information is a data rate control signal and that directivity is based on the data rate control signal. The Office Action acknowledges that Keskitalo fails to disclose use of a data rate control signal. To fill this deficiency, the Office Action relies on Ponnekanti. Ponnekanti is deficient for two reasons. First, Ponnekanti, like Keskitalo fails to disclose the claimed aspect of transmitting the signal while changing directivity. Second, Ponnekanti fails to use a data rate control signal for controlling directivity. Ponnekanti seems to disclose a feature of “timing” but fails to disclose a feature of “directivity.” For the foregoing reasons, claim 4 is not rendered obvious over the combination of Keskitalo and Ponnekanti. For the same reasons, claim 4, which depends from claim 4, is not rendered obvious.

In sum, in the device as recited in claims 1-5, are allowable over the cited art in that none of the cited art, alone or in combination, discloses controlling the directivity of the adaptive antenna based on the receiving condition of a signal in the radio terminal wherein the signal is transmitted from the transmitting portion while changing directivity. In claims 4 and 5, the data rate control signal is used to determine the receiving condition of the signal in the radio terminal. As disclosed in Applicant's specification, the base station acquires a receiving condition of the transmitted signal in the radio terminal (e.g., the DRC signal is used), while changing directivity. In this manner, the directivity of the transmission signal is controlled optimally. For at least the reasons set forth above, Applicant respectfully submits that claims 1-5 are in condition for allowance.


The Examiner is urged to telephone Applicant's undersigned counsel at the number noted below if it will advance the prosecution of this application, or with any suggestion to resolve any condition that would impede allowance. The Patent and Trademark Office is authorized to charge any fees required for the entry of this Response, including fees for an

extension of time, and any further fees that are properly assessable in this case, or to credit any overpayment, to Deposit Account No. 50-0675, Order No. 848075/0072.

In the event that an extension of time is needed for entry of this Response that is not otherwise provided for, such extension of time is hereby respectfully requested.

Respectfully submitted,

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